

What is claimed is:

1. A method for determining whether a test bacterium is a class C beta-lactamase-producing bacterium by applying spots of a class C beta-lactamase inhibitor and a beta-lactam drug at an interval on the surface of a solid medium that has been coated with the test bacterium, culturing the solid medium, and following culturing, determining whether or not the inhibitory zone formed around the beta-lactam drug has extended toward the class C beta-lactamase inhibitor.
2. The method according to claim 1, wherein the interval between the class C beta-lactamase inhibitor and the beta-lactam drug is set so that the range of diffusion of the class C beta-lactamase inhibitor and the range of diffusion of the beta-lactam drug overlap during the culture period.
3. The method according to claim 1 or 2, wherein a disk containing class C beta-lactamase inhibitor and a disk containing a beta-lactam drug are employed to apply the class C beta-lactamase inhibitor and beta-lactam drug in spots.
4. A method for determining whether a test bacterium is a class C beta-lactamase-producing bacterium by applying a mixture of class C beta-lactamase inhibitor and beta-lactam drug and a beta-lactam drug in spots at an interval on the surface of a solid medium that has been coated with the test bacterium, culturing the solid medium, and following culturing, observing the difference between the inhibitory zone formed around the mixture and the inhibitory zone formed around the beta-lactam drug.
5. The method according to claim 4, wherein a disk containing the class C beta-lactamase inhibitor and the beta-lactam drug and a disk containing the beta-lactam drug are employed to apply the mixture of class C beta-lactamase inhibitor and beta-lactam drug and the beta-lactam drug in spots.
6. The method according to any of claims 1 to 5, wherein the class C beta-lactamase inhibitor is a boronic acid compound.
7. The method according to claim 6, wherein the boronic acid compound is 3-aminophenylboronic acid.

8. The method according to any of claims 1 to 7, wherein the beta-lactam drug is a third generation cephalosporin.
9. The method according to [8], wherein the third generation cephalosporin is ceftazidime or cefotaxime.
10. A kit for determining class C beta-lactamase-producing bacteria, characterized in that a disk containing a class C beta-lactamase inhibitor and a disk containing a beta-lactam drug are arranged on a striplike base.
11. A kit for determining class C beta-lactamase-producing bacteria, characterized in that a disk containing both a class C beta-lactamase inhibitor and a beta-lactam drug and a disk containing a beta-lactam drug are arranged on a striplike base.
12. A method for determining whether a test bacterium is a class C beta-lactamase-producing bacterium by placing the kit according to claim 10 or 11 on the surface of a solid medium that has been coated with the test bacterium, culturing, and following culturing, observing differences in the inhibitory zones formed around the two disks.
13. A method for determining whether a test bacterium is a class C beta-lactamase-producing bacterium by preparing multiple liquid media containing stepwise diluted concentrations of beta-lactam drug and equal concentrations of a class C beta-lactamase inhibitor, inoculating the test bacterium into each of the liquid media, culturing, and following culturing, observing the decrease in MIC.
14. The method according to claim 13, wherein the test bacterium is determined to be a class C beta-lactamase-producing bacterium when the decrease in MIC is eightfold or greater.
15. The method according to claim 13 or 14, wherein the class C beta-lactamase inhibitor is a boronic acid compound.
16. The method according to claim 15, wherein the boronic acid compound is 3-aminophenylboronic acid.

17. The method according to any of claims 13 to 16, wherein the beta-lactam drug is a third generation cephalosporin.

18. The method according to claim 17, wherein the third generation cephalosporin is ceftazidime or cefotaxime.